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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,410	03/19/2001	Talmon Marco	1188/18	5989

7590 09/02/2004

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EXAMINER

DENNISON, JERRY B

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/810,410	MARCO ET AL.	
	Examiner	Art Unit	
	J. Bret Dennison	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Action is in response to Application Number 09/810,410 received on 19 March 2001.
2. Claims 1-58 are presented for examination.

Claim Objections

Claims 1, 2, 10, 30, 31, and 39 are objected to because of the following minor informalities: Claims 1, 2, 10, 30, 31, and 39 are in outline form where they should be in sentence form. Appropriate correction is required.

Claim Interpretation

3. Before a detailed mapping, a short discussion about the claim interpretation should be made to clarify use of terms. A client-to-client network involves two clients interacting with each other, in the case of the Applicant's claims, sharing information. The first client requests data and the second client responds with the data. Because the second client is responding to the first client's request, the second client is acting as a server. Therefore, the client-to-client network is also a client-to-server network, depending on which computer is requesting (client) and which computer is responding (server).

Claim Rejections - 35 USC § 102

Art Unit: 2143

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 7, 9, 10, 14-18, 23-30, 32, 35, 36, 38, 39, 43-47 and 52-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Cieslak et al. (U.S. Patent Number 6,240,461).

4. Regarding the claimed invention, Examiner interprets the acceleration server as nothing more than a proxy server which is well known in the art to have a storage capability wherein frequently retrieved information could be stored rather than simply passing it through to the requesting platform. By storing frequently requested data, subsequent requests for the same data could be serviced without having to retrieve the requested data from its original source. As noted in the Background of the Invention of Cieslak, using proxy servers to accelerate access is well known in the art.

5. Regarding claims 1 and 30, Cieslak discloses a system for accelerating receipt of data in a client to client network wherein each client in the client to client network operates a software program for implementing queries and providing responses, the system comprising:

at least one acceleration server designed and configured to:

intercept queries and responses in the client to client network wherein each of said queries and each of said responses contains unique identification information therein, said unique identification information facilitating interception thereof (Cieslak, col. 2, lines 29-67, Cieslak discloses wherein a caching engine intercepts requests for data, and if the caching engine does not have the requested information, it makes a connection to the original destination and retrieves it transparently. It is inherent that the packets contain unique identifiers of source and destination computers);

store the responses (Cieslak, col. 2, lines 50-60, Cieslak discloses storing the requested data); and

transmit the responses to clients submitting intercepted queries (Cieslak, col. 2, lines 50-60, Cieslak discloses transmitting the response to the requesting platform).

6. Regarding claims 3 and 32, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein said acceleration server includes a redirecting device (Cieslak, col. 2, lines 35-40).

7. Regarding claims 6 and 35, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein said queries are requests for data and said responses are data (Cieslak, col. 2, lines 30-67).

8. Regarding claims 7 and 36, Cieslak discloses the limitations, substantially as claimed, as described in claims 6 and 35, including wherein said data is in a format

Art Unit: 2143

selected from the group consisting of MP3, DVid, MPEG-2, MPEG-1, M-JPEG, MPEG-4, ActiveMovie/video for Windows (.avi), Quicktime (.mov), Realvideo (.rm and .ram), H263.1, HTML, Flash, Gif, Tif, mpeguidex and exe (Cieslak, col. 3, lines 60-67, Cieslak teaches data in multimedia format).

9. Regarding claims 9 and 38, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein an algorithm implements storage of intercepted responses on said acceleration server (Cieslak, col. 2, lines 40-45).

10. Regarding claims 10 and 39, Cieslak discloses the limitations, substantially as claimed, as described in claims 9 and 38, including wherein said algorithm includes analysis of a variable based on identification information (Cieslak, col. 2, lines 40-46, Cieslak discloses an algorithm based on the address).

11. Regarding claims 14 and 43, Cieslak discloses the limitations, substantially as claimed, as described in claims 10 and 39, including wherein said client information includes at least one datum selected from the group consisting of client connection status, client identification, presence of a specific file on a specific client and presence of a packet derived from a specific file on a specific client (Cieslak, col. 2, lines 40-50 Cieslak teaches files stored in the cache based on address of the packet derived from a file on a specific source/client).

Art Unit: 2143

12. Regarding claims 15 and 44, Cieslak discloses the limitations, substantially as claimed, as described in claims 10 and 39, including wherein said identification information includes at least one datum selected from the group consisting of file identification, packet identification, client identification, and identification of content within a file (Cieslak, col. 2, lines 40-50).

13. Regarding claims 16 and 45, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein a single query and a single response are each independently intercepted by at least two acceleration servers of said at least one acceleration server (Cieslak, col. 4, lines 25-33).

14. Regarding claims 17 and 46, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein multiple acceleration servers of said at least one acceleration server have a relative configuration selected from the group consisting of in series and in parallel (Cieslak, col. 4, lines 25-33).

15. Regarding claims 18 and 47, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein said at least one acceleration server is located in a location selected from the group consisting of within a local area network, on a server belonging to an Internet service provider, at a cable television provider junction, at a satellite relay link, and within an

ADSL junction (Cieslak, col. 3, lines 35-50).

16. Regarding claims 23 and 52, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein said acceleration server has a configuration selected from the group consisting of unidirectional and bi-directional (Cieslak, col. 4, lines 20-35).

17. Regarding claims 24 and 53, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein said acceleration server further functions as a client in the client to client network (Cieslak, col. 2, lines 29-67, Cieslak teaches that the system acts as the responding client if it contains the requested data).

18. Regarding claims 25 and 54, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein transmitting said intercepted responses to clients submitting intercepted queries includes simultaneous transmission of portions of a single data set from at least two of said acceleration servers (Cieslak, col. 2, lines 40-50, Cieslak teaches that multiple caches may be used in handling a client's request, wherein the request is based on an algorithm to find the different addresses associated with it, which may be split up on different caches).

19. Regarding claims 26 and 55, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30, including wherein said acceleration server is

Art Unit: 2143

further designed and configured to act as a transparent proxy server (Cieslak, col. 1, last paragraph, col. 2, lines 45-50).

20. Regarding claims 27 and 56, Cieslak teaches the limitations, substantially as claimed, as described in claims 1 and 30, including wherein if the requested information is not in the caching engine, the caching engine retrieves the data from the original destination platform and transmits it to the requesting platform and this is transparent to the user at the requesting platform which operates exactly as if it were communicating with the destination platform (Cieslak, col. 2, lines 53-63).

21. Regarding claims 28 and 57, Cieslak teaches the limitations, substantially as claimed, as described in claims 21 and 50, including wherein said specific client which contains data equivalent to said specific intercepted response in a directory thereof comprises at least two separate and distinct clients (Cieslak, col. 4, lines 20-35).

22. Regarding claims 29 and 58, Cieslak teaches the limitations, substantially as claimed, as described in claims 1 and 30, including wherein a specific response of said intercepted responses stored in an acceleration server has its origins in at least two separate and distinct clients (Cieslak, col. 2, lines 45-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2143

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 5, 8, 12, 31, 33, 34, 37, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cieslak in view of what is obvious in the art.

23. Regarding claims 2 and 31, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30. Cieslak also discloses requested data being multimedia (Cieslak, col. 3, line 64). Cieslak does not explicitly state wherein said at least one acceleration server is further designed and configured for dividing a specific intercepted response of said intercepted responses into at least two packets; and transmitting said at least two packets to said clients submitting intercepted queries. However, streaming data, which is widely known in the art for transferring multimedia data, includes dividing data up into packets. Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate dividing responses into at least two packets for the purpose of streaming the multimedia data.

24. Regarding claims 4 and 33, Cieslak discloses the limitations, substantially as claimed, as described in claims 3 and 32. Cieslak also discloses altering the operating system code of an existing router to redirect data traffic (Cieslak, col. 2, lines 35-40) and also that the router could be an internal router in a local area network (Cieslak, col. 3, lines 33-37). Cieslak does not explicitly state wherein said redirecting device is a layer 4 switch. However, it would have been obvious to one in the ordinary skill in the art at

Art Unit: 2143

the time of the invention to incorporate a switch as the redirecting device of Cieslak because a router serve the same generic function as a switch, which is directing traffic.

25. Regarding claims 5 and 34, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30. Cieslak also discloses wherein most Internet service providers accelerate access using proxy servers (Cieslak, col. 2, lines 1-3) and that the invention could be with in a local area network (Cieslak, col. 3, lines 35-45). Cieslak does not explicitly state wherein said acceleration server is located in a location selected from the group consisting of within a local area network and in a server belonging to an Internet Service Provider. However, it would have been obvious to one in the ordinary skill at the time of the invention to use the method of Cieslak in an internet service provider because it is common for ISP's to use proxy servers to accelerate traffic.

26. Regarding claims 8 and 37, Cieslak discloses the limitations, substantially as claimed, as described in claims 1 and 30. Cieslak does not explicitly state wherein the software program includes at least two software programs. However, it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate subprograms within a program to include different functionalities of the overall system.

Art Unit: 2143

27. Regarding claims 12 and 41, Cieslak discloses the limitations, substantially as claimed, as described in claims 10 and 39. Cieslak does not explicitly state wherein said ordinal information includes at least one datum selected from the group consisting of order of receipt and order of retrieval. However, it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate order of receipt into the algorithm because it is included in TCP/IP packets.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cieslak in view of Wexler et al. (U.S. Patent Number 6,286,084).

28. Regarding claim 13, Cieslak discloses the limitations, substantially as claimed, as described in claim 10. Cieslak does not explicitly state wherein said frequency information includes at least one datum selected from the group consisting of frequency of retrieval and frequency of appearance in clients of said client to client network. In an analogous art of networking Wexler discloses a method for populating a cache based on requested data wherein the destinations are sorted in the cache according to the frequency with which they are requested (Wexler, col. 2, last paragraph). Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate Wexler's method of populating a network cache with Cieslak for the purpose of improving the efficiency with which data are transmitted over the Internet (Cieslak, col. 1, lines 13-15).

Claims 11, 19-22, 40, and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cieslak in view of Antonov (U.S. Patent Number 5,884,046).

29. Regarding claims 11 and 40, Cieslak discloses the limitations, substantially as claimed, as described in claims 10 and 39. Cieslak does not explicitly state wherein said temporal information includes at least one datum selected from the group consisting of time of initial storage, total residence time in storage, elapsed time since last retrieval from storage, average time between retrievals from storage, and time of creation of original file. In an analogous art Antonov discloses a method for sharing data between a plurality of clients in a LAN wherein data entries are based on amount of time of storage (Antonov, col. 7, lines 17-24). Therefore it would have been obvious to one in the ordinary skill in the art the time of the invention to combine Cieslak with Antonov in order to provide data removal after a certain amount of storage time, for the benefit of keeping data in the caches up to date.

30. Regarding claims 19-22 and 48-51, Cieslak discloses the limitations, substantially as claimed, as described in claims 1, 2, 30, and 31. However, Cieslak does not explicitly state wherein said at least one acceleration server is further designed and configured to allow transmission of a specific packet of said at least two packets to a client submitting a specific intercepted query occurs only if a specific client which served as a source of said specific intercepted response is available on the client to

Art Unit: 2143

client network and only if said specific client contains data identical to said specific intercepted response in a directory of said specific client. In an analogous art, Antonov discloses a method for sharing data between a plurality of workstations in a local area network wherein six techniques are performed to guarantee that copies of data blocks contained in the cache memories are identical. Because the data blocks are checked, it is obvious that the original client is being checked for availability. Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate Antonov into Cieslak to improve efficiency of transmitting data over the Internet (Cieslak, col. 1, lines 14-16). It would have also been obvious because checking for availability and checking if the data blocks are identical are the basic functions of a proxy server.

31. Regarding claim 42, Cieslak and Antonov disclose the limitations, substantially as claimed, as described in claims 40. Cieslak does not explicitly state wherein said frequency information includes at least one datum selected from the group consisting of frequency of retrieval and frequency of appearance in clients of said client to client network. In an analogous art of networking Wexler discloses a method for populating a cache based on requested data wherein the destinations are sorted in the cache according to the frequency with which they are requested (Wexler, col. 2, last paragraph). Therefore, it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate Wexler's method of populating a network

cache with Cieslak and Antonov for the purpose of improving the efficiency with which data are transmitted over the Internet (Cieslak, col. 1, lines 13-15).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (703)305-8756. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703)308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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